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American Petroleum Institute
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Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

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JULY 1988

SUMMARY

Following the second quarter's flat performance, July's deliveries declined 2.3 percent or 390 thousand B/D from a year ago. The bulk of the decline was accounted for by decreases in residual fuel and "other oils", both of which have been weakening in recent months. Even with slowing deliveries for these products, July's year-to-year decline would have been only slight had not last July deliveries, particularly in the fuel oils and "other oils" segments, been roughly 300 thousand B/D above that year's trend.

Deliveries of both gasoline and kerosine jet fuel where flat or down slightly for July as a whole, though both were gaining strength as the month progressed. Distillate fuel oil deliveries revived from the second quarter's weakness, with the 2.2 percent rise being the only significant increase among the major products. Residual fuel oil deliveries' decline exceeded those of recent previous months, falling 15 percent last July's level; deliveries of "other oils" declined about 5 percent.

Domestic crude oil production fell 1.2 percent, or close to 100 thousand B/D, from last July. Though domestic crude oil production has fallen by 1 million B/D since early 1986, natural gas liquids production—about 10 percent of petroleum supplies—has averaged 1.6 million B/D so far this year, about the same as before the 1986 crude oil price drop.

Imports reached 7.3 million B/D in July, the highest level in almost a year and close to last July's recent-year high. Imports of gasoline and components rose to a record of nearly 600 thousand B/D, and a shift in emphasis at refineries towards greater gasoline yields, coupled with high utilization rates, resulted in July output of this product exceeding 7 million B/D—the highest for that month in a decade.

Inventories rose 14 million barrels during the month, close to the historical average for July and a slowdown from the 65 million barrel build experienced during the second quarter. Crude oil stocks, in particular, reflected the apparent reduced interest in building inventories; after several months at nearly the 360 million barrel mark, crude oil inventories slipped 12 million barrels—but remained well above year-ago levels. Gasoline inventories, though lower than in recent years, remained steady throughout the month.

PRODUCT SUPPLIED[1]

Gasoline

DELIVERIES DOWN SLIGHTLY IN JULY. Despite continued growth in both the economy and in highway travel, July's limp gasoline deliveries, down slightly from a year ago, continued the no-growth pattern of the second quarter.

However, deliveries consistently strengthened as the month progressed, indicating fairly healthy deliveries by month-end. Though such short-term data are often not a reliable indicator of longer term trends, they do suggest that at least part of the month's weakness was only temporary.

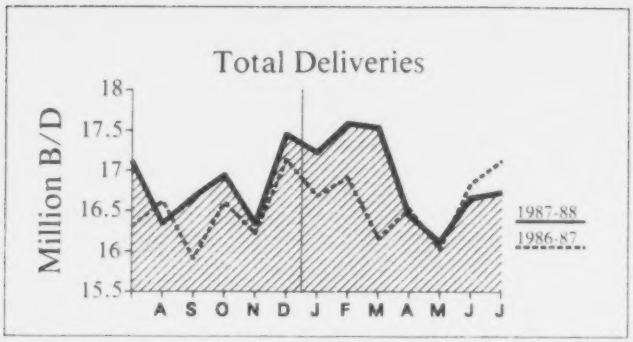
Economic growth, one factor with a strong influence on gasoline consumption, did slow slightly in the second quarter when compared with the previous quarter's rate (the most frequently cited comparison). Nevertheless, on a year-to-year basis, second quarter GNP showed a healthy, 4.3 percent rise compared with one year earlier—a factor which, other things equal, should have led to increased gasoline consumption of a percent or two, after allowing for fuel efficiency gains.

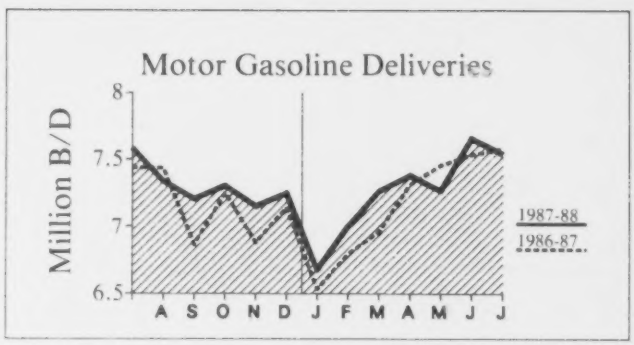
Data on miles traveled, now becoming available for the second quarter, also do not correspond with the flat performance of gasoline deliveries during that period. Travel rose 3.3 percent, year to year, in April and 3.8 percent in May—indicating little slowdown from last year's rate of increase in travel.

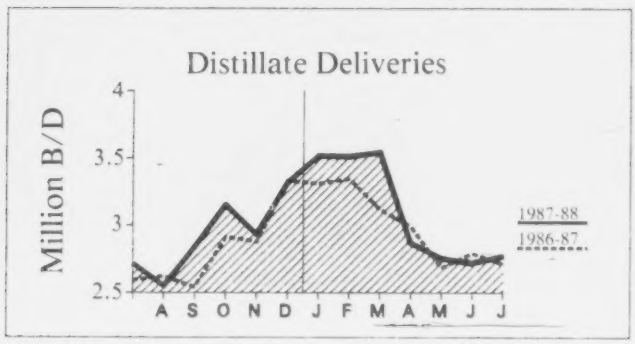
July's year-to-year comparison, in fact, may not have been as weak as it appears, if account is made of greater-than-usual "day-of-week" effects. Specifically, the analysis of historical monthly deliveries data indicates that the fact that this July contained five weekends (when gasoline deliveries, though not necessarily consumption, tend to be lower), while last July contained four, may have depressed deliveries this July by roughly 2 percent compared with the same month a year ago.

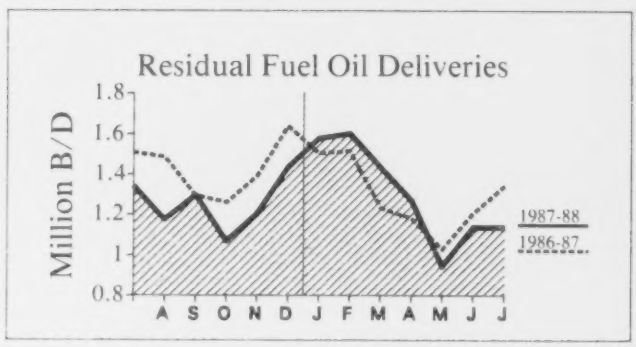
API ESTIMATES

	JULY		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.7	(2.3)	16.9	1.7
Crude oil production[2]	8.2	(1.2)	8.2	(2.2)
Total imports[3]	7.3	(2.8)	7.0	11.3
Stocks (million bbl)[3]	1,093	6.3	na	na









Distillates

UP 2.2 PERCENT FOLLOWING SLOW SECOND QUARTER. Distillate fuel oil was the only major product to show a significant increase in deliveries for July, rising 2.2 percent or 60 thousand B/D from last July's level, a level which already had been an estimated 80 thousand B/D above trend for that period.

July's increase added another zig to distillates' zig-zag behavior this year—deliveries had been up more than 8 percent in the first quarter and down slightly in the second, partly in response to changes in diesel tax collection procedures that took effect April 1. Now under consideration in Congress and tentatively effective in October are revised rules to partially reverse the previous changes, reducing tax payments due up front and later refunded for tax-exempt users.

The current strength in economic output continues to push truck traffic higher. Combined with smaller gains from the growth in rail traffic, the increasing use of on-highway diesel fuel accounts for most of this year's growth in distillate fuel oil deliveries, which, year to date, has averaged 3.6 percent. Diesel fuel consumption, in fact, has consistently grown faster than gasoline in recent years. Though highway diesel use represents only about 15 percent of all highway fuel consumption, over the past five years it has accounted for more than a quarter of the growth in on-highway fuel use.

Residual Fuel Oil

DECLINES IN DELIVERIES CONTINUE. Deliveries of residual fuel oil in July are estimated to be 1,138 thousand B/D, representing a decrease of 15 percent from July 1987. Although last year's estimate was unusually high during a period of volatility in month-to-month deliveries, the current estimate's low level continues a pattern of apparent weakness seen during the past two months. Despite the substantial year-to-year decline, July deliveries were virtually unchanged from June.

The apparent high demand for heavy fuel oil by electric utilities is believed to have helped July deliveries maintain levels of the previous month. Continuing warm weather has reportedly stimulated deliveries in the East. Ample, competitive supplies of natural gas, however, are believed to have limited the extent to which the weather has stimulated heavy fuel oil demand, preventing more significant increases of deliveries in this sector. In addition, inroads by natural gas are reported to have continued to displace fuel oil to industrial customers.

Depressed deliveries for bunker fuel are also believed to have contributed to the continuing underlying weakness in residual fuel oil deliveries. Several refiners, especially in the Gulf, have reportedly experienced reduced deliveries but reportedly began to move modest amounts by the end of the month. West Coast markets are somewhat more robust, but increased export markets for bunker cargoes from the West Coast to the Pacific Rim have reportedly contributed to the reduction in the availability of domestic supplies, contributing to the overall weakness in residual fuel oil deliveries.

Kerosine Jet Fuel

AIR TRAFFIC GROWTH SLOWING THIS YEAR. After five years of strong growth, air traffic increases have been diminishing this year, and the results have been apparent in kerosine jet fuel deliveries. Even so, July's deliveries, being about equal with a year ago, appear weaker than the growth in air traffic would suggest.

From 1982 to 1987, revenue passenger miles grew an average of 9 percent per year, accompanied by a similar annual rise in miles flown. Even with improving fuel efficiency resulting

from newer aircraft joining the fleet, the average growth in kerosine jet fuel consumption exceeded 7 percent per year—or a nearly 50 percent increase in usage over the five-year period. In 1988, year-to-year increases in miles flown had slipped to an estimated 3 percent by the second quarter, with July's increase likely similar. Jet fuel growth has fallen correspondingly. The modest remaining increase in traffic this year has not come from domestic passenger traffic, which has been nearly flat; most of the gains have come from increases in international travel and air freight service.

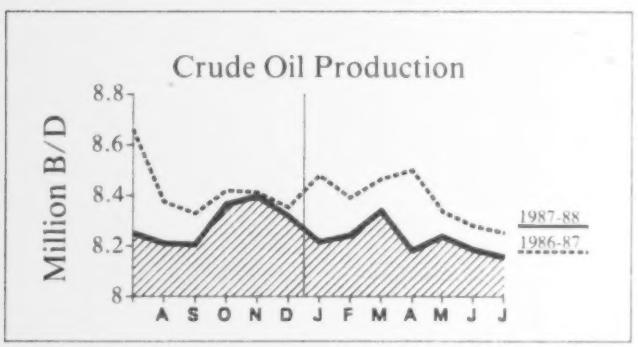
Though July's kerosine jet fuel deliveries may be somewhat out of step with indicators of air traffic, the coupling between patterns of air traffic and of jet fuel deliveries is a loose one. For example, though July and August are typically the peak traffic periods for the air transport industry, no such summer peak is apparent in jet fuel deliveries patterns. In fact, in the past several years, July deliveries have frequently been below the annual average of the corresponding year. Apparently, some of the swings in usage are smoothed out through private inventory movements.

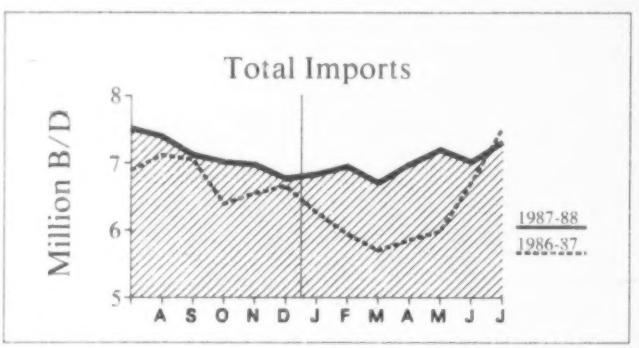
Other Oils

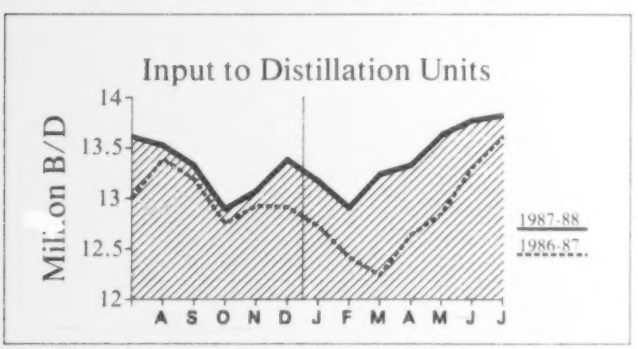
EARLIER STRENGTH TURNS TO DECLINE. Deliveries of other oils in July are estimated to be 4,064 thousand B/D, a decrease of 5.1 percent from last year but an increase of 2.8 percent from June. The estimate represents an apparent reversal of earlier strength in the category. The month-to-month increase, however, appears to reflect movements in asphalt and road oil deliveries, and is consistent with normal seasonal patterns.

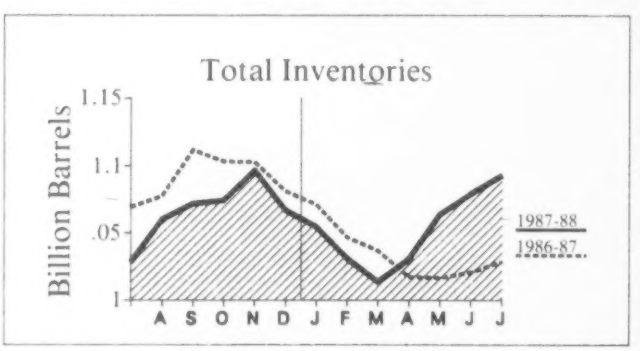
Several products are believed to be responsible for the ongoing weakness in the other oils category. In the petrochemicals group, temporary disruptions have reportedly affected production at several Gulf-area refineries, preventing significant growth in deliveries from last year's levels. Propane deliveries continue to display apparent weakness in the competitive olefin market, but ethane demand appears to be firm. Naphtha and gasoil are reported to have registered slight declines from last year's levels.

Although asphalt and road oil deliveries are believed to have increased from levels of the previous month in line with seasonal patterns, they remain substantially below last year's levels. The drought has continued to affect deliveries, even though barge movements have increased somewhat from last month's levels. Some of the continued weakness, however, is reportedly due to the earlier lack of rain which allowed completion of road maintenance programs ahead of schedule. On the East and West Coasts, moreover, revenue constraints in several states are believed to be hampering road building and maintenance activity.









SUPPLY [1/]

Production

CRUDE PRODUCTION DOWN, NGLs HOLD THEIR OWN.

With Alaskan production remaining in the 1.9-2.0 million B/D range so far this year, crude oil output there has continued to provide some offset to declines in the lower 48. For July, production outside Alaska fell about 150 thousand B/D versus one year earlier, but a 50 thousand B/D increase for Alaska held the decline for the U.S. as a whole to about 100 thousand B/D.

Natural gas liquids production, which currently supplies about a tenth of domestic consumption, has been subject to differing forces compared with crude oil. It has not followed the steady decline that crude oil has experienced since its price dropped precipitously in 1986, a decline that now amounts to roughly 1 million B/D. Though natural gas liquids output has varied over the period in response to its components' values as petrochemical feedstocks and natural gas demand, production this year has averaged 1.6 million B/D—the same as in 1985.

Imports

LAST JULY'S RECORD IS NEARLY MATCHED THIS YEAR.

Imports reached the highest level in almost a year in July, and, at 7.3 million B/D, came close to last July's recent-year record. Almost all of the month's imports went towards meeting consumption, with less going to boost inventories than was the case during the second quarter.

Product imports, which had been running at about 1.9 million B/D in recent months, rose to 2.1 million B/D in July with help from gasoline. Imports of gasoline and components reached a new high of almost 600 thousand B/D; distillate imports declined 170 thousand B/D from high levels a year ago, and residual fuel oil imports fell 270 thousand B/D in the face of weaker demand. The net result was a year-to-year decline in product imports of about 200 thousand B/D from last July's higher-than-usual levels.

Refinery Operations

UTILIZATION HIGH, GASOLINE OUTPUT PASSES LAST JULY'S.

The demand growth of the last several years, combined with the fact that refineries are usually most active in the summer months when demand is seasonally stronger, helped to put input to distillation units at the highest level since 1980 in July. Utilization, at 86.9 percent of operable capacity, also reached its highest level of the 1980s. If adjusted for capacity classified as 'operable' but not currently in operation, utilization for the month would have been 92 percent, a level only rarely experienced in the past decade.

The high utilization rate, combined with increasing emphasis on gasoline production as the month progressed, helped the month's gasoline output to slightly exceed last July's level, setting a new recent-year high for the month. The growth in distillate deliveries was reflected in production of that product, which rose 5 percent from last July's level. For residual fuel oil, however, output declined only slightly despite weak deliveries.

Inventories

BUILD SLOWS, CRUDE STOCKS FALL.

After rising 65 million barrels during the second quarter, inventories' rise slowed to a 14 million barrel increase in July—close to the seasonal average. Crude oil stocks, in particular, reflected the shift in inventory behavior, falling 12 million barrels from the roughly 360 million barrel level they had maintained for the previous several months. Even with the decline, crude oil inventories at the end of the month were still high compared with recent years' experience and 24 million barrels above the level of one year earlier.

Gasoline inventories remained steady throughout the month, though at levels lower than typical for the recent past. As noted last month, gasoline inventories in recent years have played a minor role at best in meeting summer gasoline demand; this year's June-July draw of approximately 14 million barrels (about 3 percent of deliveries) has actually been somewhat larger than average.

1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 551 million barrels as of July 31, 1988).

ESTIMATED UNITED STATES PETROLEUM BALANCE

(Daily Average in Thousands of 42 Gallon Barrels)

Products Supplied/Supply From Primary Storage	JULY			YEAR-TO-DATE		
	1988[1]	1987[2]	% Change	1988[3R]	1987[2]	% Change
Products Supplied:						
Total motor gasoline	7,546	7,581	(0.5)	7,257	7,173	1.2
Finished leaded motor gasoline*	1,386	1,841	(24.7)	1,405	1,817	(22.7)
Finished unleaded motor gasoline*	6,160	5,740	7.3	5,852	5,356	9.3
Naphtha-jet	202	224	(9.8)	205	202	1.5
Kerosine-jet	1,169	1,165	0.3	1,214	1,162	4.5
Distillate fuel oil	2,773	2,713	2.2	3,098	2,989	3.6
Residual fuel oil	1,138	1,339	(15.0)	1,298	1,285	1.0
All other oils[4]	4,064	4,282	(5.1)	4,011	4,002	0.2
Reclassified[5]	- 169	- 191	(11.5)	- 192	- 211	(9.0)
Total domestic products supplied	16,723	17,113	(2.3)	16,891	16,602	1.7
Exports	749	680	10.1	800	752	6.4
Total products supplied	17,472	17,793	(1.8)	17,691	17,354	1.9
Supply:						
Domestic production:						
Crude oil[6]	8,155	8,251	(1.2)	8,202	8,385	(2.2)
Natural gas liquids	1,620	1,582	2.4	1,606	1,590	1.0
Other supply[7]	837	697	20.1	1,012	848	19.3
Total domestic supply	10,612	10,530	0.8	10,820	10,823	-
Imports:						
Crude oil, total	5,208 10/	5,218 10/	(0.2)	4,938 10/	4 303 10/	14.8
Canadian	687	672	2.2	685	611	12.1
Other	4,521	4,546	(0.5)	4,253	3 692	15.2
Products, total	2,095	2,293	(8.6)	2,056	1,980	3.8
Residual fuel oil	450	721	(37.6)	552	587	(6.0)
Other	1,645	1,572	4.6	1,504	1,393	8.0
Total imports	7,303	7,511	(2.8)	6,994	6,283	11.3
Total supply	17,915	18,041	(0.7)	17,814	17,106	4.1
Stock change, all oils	+ 443	+ 248	XXXX	+ 123	- 248	XXXX
Refinery Operations						
Input to crude oil distillation units	13,825	13,612	1.6	13,416	12,830	4.6
Operable capacity	15,917	15,701	1.4	15,909	15,585	2.1
Refinery utilization (%)[8]	86.9%	86.7%	0.2	84.3%	82.3%	2.4
Crude oil runs	13,672	13,430	1.8	13,238	12,680	4.4

Stocks (millions bbls.)	1988		1987[2]	% Change from ...	
	July 31[9]	June 30[9]	July 31	Previous Month	Year Ago
Crude oil 10/	347.6	359.2r/	323.8	(3.2)	7.4
Unfinished oils	113.3	112.2r/	100.0	1.0	13.3
Total motor gasoline**	211.2	209.7	226.4	0.7	(6.7)
Finished leaded motor gasoline*	43.0	42.7	54.7	0.7	(21.4)
Finished unleaded motor gasoline*	131.9	132.1	134.2	(0.2)	(1.7)
Naphtha-jet	7.2	6.7	7.3	7.5	(1.4)
Kerosine-jet	39.6	38.7r/	39.5	2.3	0.3
Distillate fuel oil	118.4	111.4r/	114.6	6.3	3.3
Residual fuel oil	40.7	41.1	44.7	(1.0)	(8.9)
All other oils	214.9	200.1r/	172.2	7.4	24.8
Total all oils	1,092.9	1,079.1r/	1,028.5	1.3	6.3

1/ Based on API estimated data converted to a monthly basis.
2/ Source: U.S. Department of Energy.
3/ Source: January-May, U.S. Department of Energy, June-July, API.
4/ Includes crude losses.
5/ Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.
6/ Includes lease condensate.
7/ Includes Unaccounted-for crude oil, Refinery input of other hydrocarbons, and Processing gain.
8/ Represents "Input to crude oil distillation units" as a percent of "Operable capacity."
9/ Derived by interpolating API weekly stocks data.
10/ Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
R/ Revised.
* Included in motor gasoline.
** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.